Reduce Television Viewing

Nutrition and Physical Activity to Prevent Obesited

Rationale

National cross-sectional surveys have shown a positive association between the number of hours children watch TV and prevalence of overweight.^{1, 2,3} For example, an analysis of the Third National Health and **Nutrition Examination Survey** of children 8 to 16 years old found that the prevalence of overweight was lowest among children watching 1 hour or less and highest among those watching more than 4 hours a day.2 Longitudinal and experimental studies have suggested a causal relationship between increased TV hours and overweight in children.^{4,5} In a nationally representative study of children 10 to 15 years old, 4 a dose-response relationship between hours of TV and change in body weight in girls was shown. Two school-based studies using randomized controlled trial designs showed that children who reported a decrease in time watching TV also showed a reduction in overweight.^{5, 6}

The Healthy People 2010 objectives include the objective to increase the proportion of adolescents who view TV two or fewer hours on a school day. The 2001 Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity recommended that children watch no more than two hours of TV a day. 8

TV viewing is the most common sedentary activity of children in the United States. On average, children 2 to 17 years old spend approximately 4.5 hours a day watching some kind of screen, with 2.5 to 2.75 hours of that spent watching TV.9, 10 TV time varies with age. Children 2 to 7 years old watch an average 2 hours a day, while those 8 to 13 watch an average of almost 3.5 hours, and those 14 to 18 watch approximately 2.75 hours a day.9 Boys watch more TV than girls, children in lower Social Economic Status families watch more, and African American children and adolescents watch more hours of TV than do Hispanics, who, in turn watch more than

Caucasian children and adolescents.^{2, 9,10}

In Missouri, over half (56.2%) of high school students and over two-thirds (67.4%) of middle school students report watching two or more hours of TV per day on an average school day.11 On average, children enrolled in WIC watched TV or video tapes 2.1 hours per day, as reported by their parent or guardian; the lowest average number of hours watched was in the 12 to 24 month age group, which watched 1.4 hours per day, and the highest average number of hours watched was in the 48 to 59 month age group, which watched 2.7 hours per day.¹²

The mechanisms for the relationship between TV time and overweight have not been clearly determined. Proposed mechanisms include: TV watching may displace physical activity; children may have increased caloric intake while watching TV; children who watch more TV may be influenced by advertisements to

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request, buy or consume more high calorie foods and more snacks; and, TV viewing may reduce metabolic rate.^{2, 4,5,13,14}

Studies have linked TV use to factors in the family and the home. 9, 10 Children who have a TV in their bedroom spend more time watching TV. Children who live in a home where the TV is on all the time. and those who spend more than half their TV time watching alone tend to watch more. Parental behavior also is associated with TV time. Children watch less TV if thev have parents who watch less TV themselves, monitor TV closely, are more consistent in TV viewing rules, and know more about the media and media effects. 10, 15,16

Evidence-Based Interventions

Few interventions to reduce TV watching have been reported in the literature. One clinic-based and three school-based interventions have resulted in decreases in reported TV time among children exposed to the interventions.

A pilot intervention in an urban community clinic in Atlanta showed that both counseling alone and counseling alone with providing a behavioral intervention and TV time manager, resulted in a decrease in reported TV time.¹⁷

The "Planet Health" intervention in Boston used an interdisciplinary curriculum addressing TV watching, diet,

and physical activity for use in grades 6 to 7.6

The "Eat Well, Keep Moving" program in Baltimore developed materials addressing diet, TV watching, and physical activity to use in classrooms with children in grades 4 to 5.18

A school-based intervention in San Jose, California incorporated lessons on TV, videotape, and video game self-monitoring and reduction into the curriculum for children in grades 3 and 4, distributed newsletters to parents, and provided electronic monitors that controlled power to the TV to all households in the study.⁵

Innovative Ideas for Testing in States

Although more testing of interventions and approaches is needed on this topic, some promising approaches follow:

Healthcare setting

- Counseling by health providers to reduce TV viewing
- Training for health care professionals to counsel patients to reduce TV viewing

School, childcare, and after-school settings

- Curriculum-based approaches to reducing TV viewing aligned with state and national educational standards
- Increasing media literacy of children so that children and youth

- recognize advertising messages that interfere with making healthy behavioral choices
- Approaches addressing both children and their parents to decrease TV viewing in the home setting

Family and Community

- Social marketing campaigns that advocate reduced TV viewing
- · Interventions with parents to reduce their own TV watching
- Parenting programs addressing parental monitoring and setting of rules (e.g., no TV in the child's bedroom, not leaving the TV on all the time, not letting children watch TV alone, not watching TV during meals)
- Providing more safe and engaging activities for children to do instead of watching TV

Adapted from the following

documents: Centers for Disease Control and Prevention Technical Assistance Manual for State Nutrition and Physical Activity Programs to Prevent Obesity and Other Chronic Diseases: Evidence Based Practices for Overweight and Obesity: A Review of the Literature, Glenda Nickell, Sinclair School of Nursing, University of Missouri-Columbia, 2003; Missouri Department of Health and Senior Services Draft Obesity Burden Report, 2004.

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This document was supported by Grant/Cooperative Agreement Number U58/CCU722795-02 from the Centers for Disease Control and Prevention. Contents are solely the responsibility of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention.

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